U.S. COAST GUARD
627
627

PLATE NO. 1
COVER

BOOKLET OF GENERAL PLANS WMEC 627–VIGOROUS

DWG. NO. 627WMEC–0103–02

GENERAL DESCRIPTION

DWG. NO. 627WMEC–085–271
SHEET NO. 1 OF 2
PLATE NO. 2

LIFE BOAT AND DAVIT DATA

ONE (1) 22' CUTTER BOAT – OTH (0780)
ONE (1) TWIN PIVOT ARM DAVIT CRANE (11,020# CAP.)
FOUR (4) "MENTY" FIVE MAN INFLATABLE LIFE RAFT.
ONE (1) SINGLE POINT DAVIT CRANE
ONE (1) SINGLE POINT DAVIT CRANE W/CONTROL CONSOLE (5700# CAP.)

ACCOMMODATIONS

	NORMAL
OFFICERS	12
CPO	7
CREW	66
TOTAL	86

ARMAMENT

INSTALLED:
ONE (1) 25 MM GUN MK 38 MODEL
TWO (2) 50 CAL. MACHINE GUNS

STEERING GEAR DATA

ELECTRO–HYDRAULIC FOR TWIN RUDDER APPLICATION
THE DESIGN PRESSURE FOR THE HYDRAULIC SYSTEM SHALL NOT EXCEED 2000 PSIG.

REFRIGERATION PLANT

TWO (2) REFRIGERATION CONDENSING UNITS, WATER COOLED TYPE, APPROX. ONE (1) TON CAPACITY.

DECK MACHINERY DATA

ONE (1) ELECTRIC MOTOR DRIVEN WARPING CAPSTAN (2400# AT 110 FPM/ 7200# AT 37 FPM)
TWO (2) CAPSTAN WINDLESS–W/2800# STOCKLESS ANCHOR AND 105 FA OF 1 3/8" DI–LOK CHAIN EACH (CAPSTAN–4000# AT 40 FPM.)

EQUIPMENT

TWO (2) 500 LB. PORTABLE DAVITS.
ONE (1) 1500 LB. PORTABLE DAVIT.

DEADWEIGHT DISPLACEMENT & LIGHTSHIP

LIGHTSHIP	822 LT (EST)
MINIMUM OPERATING CONDITION	1011 LT (EST)
FULL LOAD CONDITION	1070 LT (EST)

NOTE: FOR THE ABOVE INFORMATION REFER TO THE LATEST STABILITY TEST REPORT.

HOLD AND TANK CAPACITIES

TOTAL FUEL CAPACITY	48,881 GAL.
TOTAL FW CAPACITY	11,694 GAL.
TOTAL JP–5 FUEL CAPACITY	4,683 GAL.
TOTAL LUBE OIL CAPACITY	2,090 GAL.

POWER PLANT AND SPEED

DIESEL ENGINES TWO (2)	2500 H.P. EACH
SHAFT HORSEPOWER (TOTAL)	5000 H.P. EACH
SUSTAINED SPEED	18 KNOTS

PROPELLER

NUMBER OF BLADES	4
DIAMETER IN FEET	7'–6"
WEIGHT, ESTIMATED	5120 LBS. EACH
WEIGHT, ESTIMATED W/SHAFTING	21,427 LBS.

GENERATING PLANT

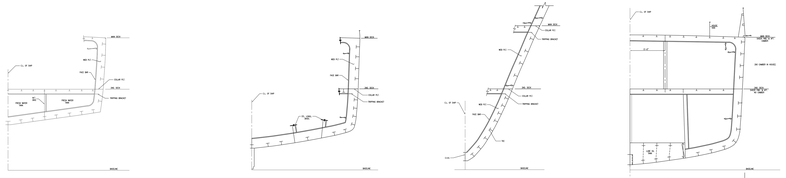
TWO (2) 250 KW AT 8 POWER FACTOR DIESEL GENERATOR
3–PHASE, 60 CYCLE, 450 VOLT AC.

PRINCIPAL CHARACTERISTICS

LENGTH OVERALL	210'–6"
LENGTH ON DESIGN WATERLINE	200'–0"
BEAM, EXTREME MOLDED	34'–0"
DEPTH MOLDED, MAIN DECK AT MIDSHIPS	19'–6"
DESIGN DRAFT, MAXIMUM	10'–6"
HIGHEST PROJECTION ABOVE KEEL MIDSHIPS	87'–0"

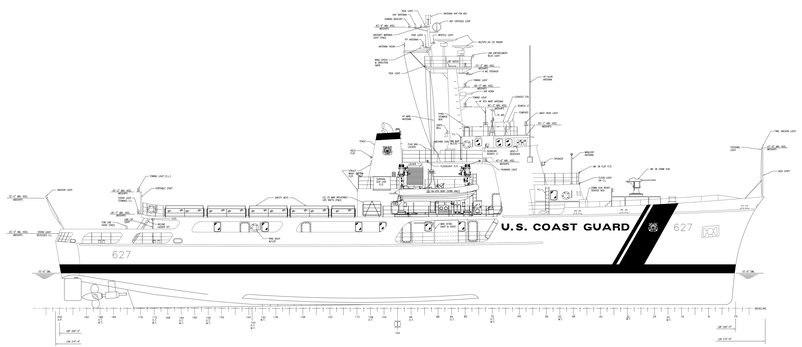
GENERAL DESCRIPTION
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: NONE

DWG. NO. 627WMEC–085–271
SHEET NO. 1 OF 2
PLATE NO. 3



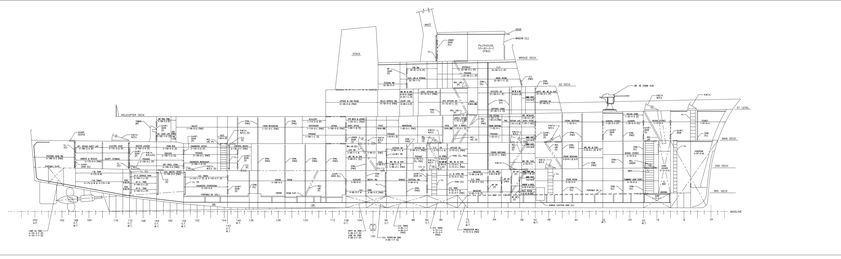
TYPICAL SECTIONS
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/4"=1'–0"

DWG. NO. 627WMEC–085–271
SHEET NO. 2 OF 2
PLATE NO. 4



OUTBOARD PROFILE
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/8"=1'–0"

DWG. NO. 627WMEC–085–271
SHEET NO. 1 OF 2
PLATE NO. 5



INBOARD PROFILE
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/8"=1'–0"

DWG. NO.	SH	REV
627WMEC–085–271	1	C

REVISIONS

REV	SHT	ZONE	DESCRIPTION	BY	DATE	APRVD
A	1–14	ALL	1. ADDED APPLICABILITY AND UPDATED BLOCK AW (13 FAMILY SERIES).	MCR	11–8–99	JPM
B	1	5–4	1. STBD SIDE REMOVED THE MSB AND REPLACED WITH CB–LOK.	JOP	5/31/11	"JOP 5/31/11" ENG. BRANCH CHIEF MEC PL
	2	13–4	PORT SIDE REMOVED THE AVON 6 METER BOAT AND REPLACED WITH CB–L.			
	1	15–4	3. UPDATED THE LIFE BOAT AND DAVIT DATA CHART.			
C			THE FOLLOWING CHANGES WERE MADE IN ACCORDANCE WITH SFLC ACTIVITY JEKS37 TO UPDATE CHANGES MADE UNDER TCTO TK10202:	JMR	8/23/11	SES /s/
	2	7–9	1. REMOVED EVAPORATOR & INSTALLED REVERSE OSMOSIS W/CONTROL PANEL & MEDIA FILTER.			
	2	7–9	2. REMOVED EVAPORATOR FEED PUMP CONTROL PANEL & CONDENSATE RECEIVER			
	2	7–9	3. REMOVED CHLORINATOR PUMP AND TANK			
	2	7–9	4. CORRECTED CALLOUT FROM "JACKET WATER HEADER"			
	2	7–9	5. REMOVED LUBE OIL PURIFIER SLUDGE PUMP, MOTOR STARTER & HEATER CONTACTOR.			
	2	7–9	6. REPLACED LUBE OIL PURIFIER STOP LUBE OIL TANK WITH SPINNERS.			
	2	7–9	7. REMOVED CASUALTY POWER CABLE RACK.			
	2	7–9	8. REMOVED WASTE HEAT CIRCULATOR PUMP & CONTROLLER			
	2	7–9	9. REPLACED LUBE OIL PURIFIER CONTROL PANEL WITH SPINNER CONTROL PANEL.			

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* 9000 SERIES DRAWING NUMBER WAS 627WMEC–0103–2

1000 WEL CARTO SHT	
BALTIMORE, MARYLAND 21226	
INITIALS	DATE
DESIGN	
DRAWN LJG	
CHECKED WLG	
LJG APPROVED	
CHIEF FALL BRANCH	
U.S.C.G. APPROVAL	
R.J.P. LAW /S/ETYNKIEWICZ/JRP	
CHIEF ENGINEERING DIVISION	

U.S. COAST GUARD HEADQUARTERS WASHINGTON, D.C. 20593
OFFICE OF NAVAL ENGINEERING
210' MMA "B" CLASS
BOOKLET OF GENERAL PLANS

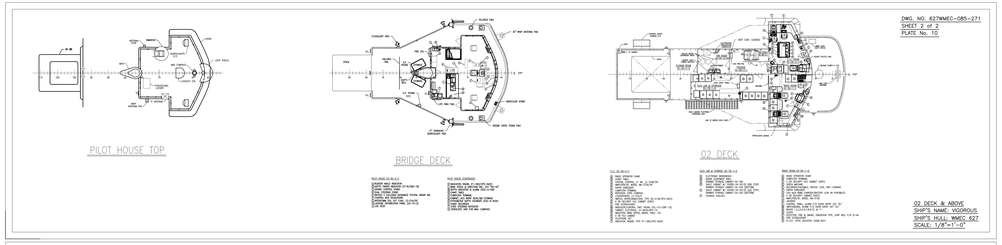
SIZE	FSCM CAGE NO	U.S.C.G. DRAWING NO.	REV
H	81340	627WMEC–085–271	C

SCALE AS NOTED 19.8 SQ. FT. SHEET 1 OF 2

PLOT SCALE: FULL FILE CODE:

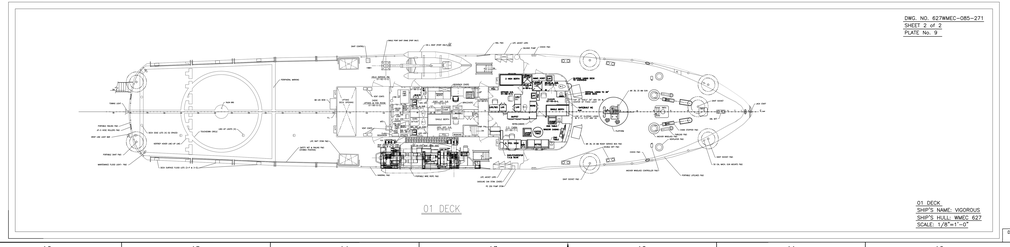
PLAN DISTRIBUTION

	ORIGINAL	REVISION
ENGINEERING		
STRUCTURAL DESIGN		
MECHANICAL DESIGN		
ELECTRICAL DESIGN		
ELECTRONICS DESIGN		



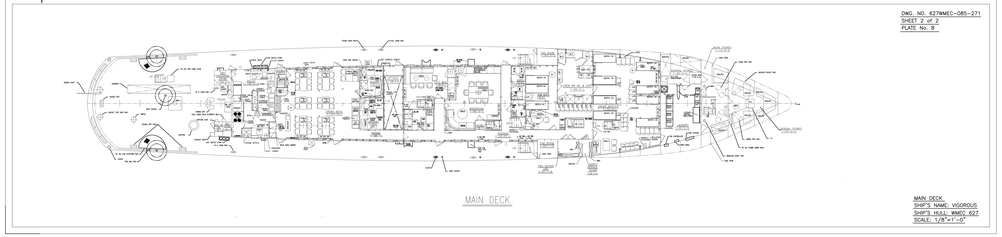
DWG. NO. 627WMEC-085-271
SHEET 2 of 2
PLATE No. 10

02 DECK & ABOVE
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/8"=1'-0"



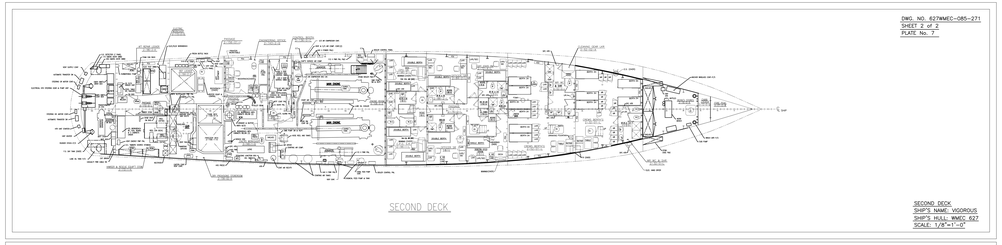
DWG. NO. 627WMEC-085-271
SHEET 2 of 2
PLATE No. 9

01 DECK
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/8"=1'-0"



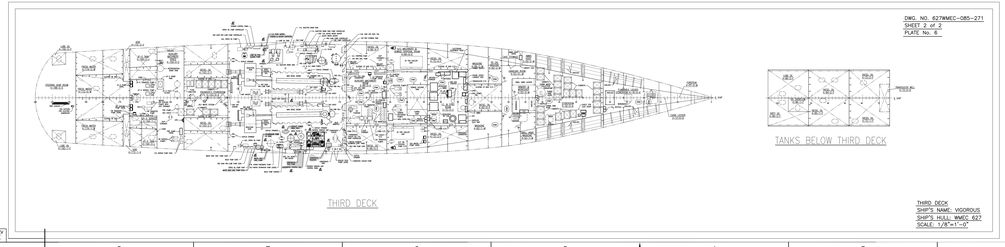
DWG. NO. 627WMEC-085-271
SHEET 2 of 2
PLATE No. 8

MAIN DECK
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/8"=1'-0"



DWG. NO. 627WMEC-085-271
SHEET 2 of 2
PLATE No. 7

SECOND DECK
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/8"=1'-0"



DWG. NO. 627WMEC-085-271
SHEET 2 of 2
PLATE No. 6

THIRD DECK
SHIP'S NAME: VIGOROUS
SHIP'S HULL: WMEC 627
SCALE: 1/8"=1'-0"

DWG. NO.	SH	REV
627WMEC-085-271	2	C

* 9000 SERIES DRAWING NUMBER WAS 627WMEC-0103-02

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OFFICE OF NAVAL ENGINEERING

210' MMA 'B' CLASS

BOOKLET OF GENERAL PLANS

SIZE	FSCM CAGE NO	U.S.C.G. DRAWING NO.	REV
H	81340	627WMEC-085-271	C

SCALE AS NOTED 19.6 SQ FT SHEET 2 OF 2

DWG NO 627WMEC-085-271 REV C

PLOT SCALE: FULL

FILE CODE: